MAR 1952

CLASSIFICATION RESTRICTED
SECURITY INFORMATION
CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

CD NO.

STAT

COUNTRY	USSR
SUBJECT	Transportation - River Economic - Transloading barge
HOW PUBLISHED	Monthly periodical
WHERE PUBLISHED	Moscow
DATE PUBLISHED	Jan 1952
LANGUAGE	Russian

DATE OF INFORMATION 1951

DATE DIST. 8 Jun 1953

NO. OF PAGES 2

SUPPLEMENT TO REPORT NO.

THIS IS UNEVALUATED INFORMATION

SOURCE Rechnoy Transport, No 1, 1952.

SOVIET RIVER FLEET GETS NEW TRANSLOADING BARGE

One of the plants of the Ministry of Transport Machine Building has built a new large petroleum pumping barge which has an hourly capacity of 1,000 cubic meters (kerosene). The barge-mounted station, designed at the Leninskaya Kuznitsa Plant, was tested and put into operation in 1951.

Dimensions of the pumping barge are as follows (in meters):

Length of hull (theoretical) between perpendiculars	59.6
Maximum length of station	64.8
Beam at midship	14.0
Maximum beam	14.4
Freeboard at midship	3.2
Height of station including smokestacks	10.0
Height to top of mast	16.5
Draft, empty	.92
Draft, with maximum fuel load	1.77

The barge-type hull, deck, and single-story superstructure of the station are made entirely of welded steel. Two metal reinforced booms, one on each side, handle the 350-millimeter oil pipe. Intake and outlet loading pipes are joined to the pipeline by two steel ball couplings and have a 25-degree radius of action. Pipes are changed by means of Ludlo /Ludlow ?/ locking slide valves. All other ship machinery and systems conform with regulations and requirements of the River Registry USSR and Sanitary and Safety Inspection.

The main pumping apparatus consists of two steam-driven NPN-500 pumps which were designed at the Leninskaya Kuznitsa SKB Plant. The pumps operate on superheated steam at 300 degrees centigrade instead of the conventional saturated steam, and at a vacuum of 80-85 percent (conventional pumps operate on atmospheric pressure or on back pressure).

CLASSIFICATION RESTRICTED

STATE	X	NAVY	X	NSRB		DISTRIBUTION							
ARMY	X	AIR	X	FBI			MBPC X						

The pump has a welded base with which it is transported and installed in the ship's hull without requiring disassembly or alignment. The main dimensions of the pump are (in millimeters):

Diameter of liquid cylinders	475
Diameters of steam cylinders	750
Piston stroke	550

There are altogether eight slit-type suction and pressure valves. During tests, the pumps handled 350 to 597 cubic meters per hour, depending upon various conditions imposed. *

One of the main advantages of the pumping station is that both its main pumps and the flushing pumps are located below decks and the pumps therefore work under the pressure head of the liquid freight.

Three KV-5 steam boilers are used for power for the pumps and for heating the fuel. Tests proved that two KV-5 boilers supplied sufficient steam for operating the NPN-500 pumps at a back pressure of 7.5-8.4 kilograms per square centimeter and for heating the oil.

The flushing pump's capacity of 138 cubic meters per hour was inadequate and the pump therefore was replaced by a flushing pump of the Smolkin type.

The commission which put the oil loading station into operation made recommendations which must be studied before the station is put in series production.

* /Tables giving additional statistics on pumps and showing results of tests of pumps are given in source/

- E N D -